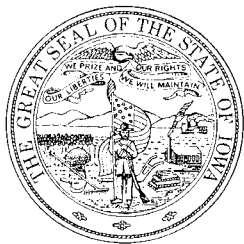


Check one of the following: ☐ New Permit ☐ Permit Renewal # _____ - SDP - - PCS ☐ Permit Amendment



IOWA DEPARTMENT OF NATURAL RESOURCES MULTIUSE LANDFARMING PERMIT APPLICATION



Landfarming agencies must complete a multiuse landfarming permit application for landfarms used for more than one application of petroleum contaminated soil (PCS). Each application of a particular source and type of PCS is landfarmed in separate landfarm plots. Multiuse landfarming permit applications must be accompanied by the analyses and additional information required by the applicable landfarming rules under Iowa Administrative Code (IAC) 567 Chapter 120.

Send the completed application with attached information to:

Planning, Permitting & Engineering Section
Energy & Waste Management Bureau
Iowa Department of Natural Resources
502 E 9th Street
Des Moines, IA 50319
Fax: (515)-281-8895

Questions contact Matt McDonald at (515)-281-8150 or matt.mcdonald@dnr.state.ia.us

SECTION 1. CONTACT INFORMATION [IAC 567-120.5(1) "a"]

Provide the name, address and telephone number for the following in accordance with IAC 567-120.5(1) "a":

Agency Applying for the Multiuse Landfarm Permit

Name: _____
Street Address: _____
City: _____ State: _____ Zip Code: _____
Phone Number: _____

Owner(s) of the Agency

Name: _____
Street Address: _____
City: _____ State: _____ Zip Code: _____
Phone Number: _____

SECTION 1. CONTACT INFORMATION CONTINUED...

Owner(s) of the Multiuse Landfarm Site

Name: _____

Street Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____

Individual Responsible for the Operation of Multiuse Landfarm

Name: _____

Street Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____

Individual Responsible for the Record Keeping and Reporting of Multiuse Landfarm

Name: _____

Street Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____

Emergency Contact for Multiuse Landfarm

Name: _____

Street Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____

SECTION 2. PERMIT APPLICATION CHECKLIST

Checking the appropriate boxes below certifies that the documents submitted in conjunction with this application form are complete and in compliance with chapter 120 of the Iowa Administrative Code. Three (3) copies of each document shall be submitted. If an application is found by the department to be incomplete, it may be denied and returned to the applicant.

Required Document	Attached
Section A. Site plan and analysis in accordance with IAC 567-120.5(1) "b" and IAC 567-120.5(1) "c"	<input type="checkbox"/>
Section B. Groundwater monitoring plan in accordance with IAC 567-120.5(1) "d"	<input type="checkbox"/>
Section C. Plan of operations in accordance with IAC 567-120.5(1) "e"	<input type="checkbox"/>
Section D. Emergency response and remedial action plan (ERRAP) in accordance with IAC 567-120.5(1) "f"	<input type="checkbox"/>
Section E. Information on how the site will be used for at least three years following the last application of PCS in accordance with IAC 567-120.5(1) "g"	<input type="checkbox"/>

SECTION 3. SIGNED STATEMENT FROM AGENCY OWNER(S) [IAC 567-120.5(1) "h"]

I certify under penalty of law that I am the owner, operator, or authorized representative of the landfarming agency for which this application is submitted, and that I have examined and am familiar with the requirements of operation through this permit that I have applied for herein, and that the information I have provided is true, accurate and complete.

I further certify that the construction and operation of landfarms by this agency will be in accordance with the plans, specifications, reports and related communications accepted by the Iowa Department of Natural Resources and on file in its office; and in accordance with conditions imposed in the permit issued by the Iowa Department of Natural Resources and guarantee that this Agency will comply with Iowa Administrative Code 567—Chapter 120.

Signature: _____

Date: _____

Printed Name: _____

DOCUMENTS TO BE ATTACHED

SECTION A. SITE PLAN AND ANALYSIS [IAC 567-120.5(1) “b”, 120.5(1) “c”]

- ☛ Attach a site analysis demonstrating that the proposed site complies with the requirements below in accordance with IAC 567-120.7(455B) “Site Exploration and Suitability Requirements for Landfarms” and IAC 567-120.8(455B) “Landfarm Design Requirements”. A site plan shall include a legal description of the site, scaled site map showing all areas proposed for PCS application, including site dimensions, site acres to be utilized, property boundaries and proposed location of monitoring wells. Analysis shall also include a USDA soil map (with key) and topographical map showing bodies of water, residences and other land features as required below.

Subrule:	Requirement
120.7(1)	<p><i>Previous use.</i> The landfarm applicator shall obtain written confirmation from the site owner of one of the following requirements. This subrule shall not apply to land utilized as a landfarm prior to the effective date of this chapter.</p> <p>a. That and other landfarm created in the past three years within 15-feet of the proposed operating area has been closed pursuant to rule 567--120.12(455B).</p> <p>b. That no area within 15 feet of the proposed operating area has been used as a landfarm in the past three years.</p>
120.7(2)	<p><i>Wells.</i> PCS shall not be landfarmed or stored within 500 feet of a well that is being used or could be used for human or livestock consumption. Groundwater monitoring wells installed pursuant to paragraph 120.8(2)“c” are exempt from this requirement. The department may also exempt from this requirement extraction wells utilized as part of a remediation system. PCS shall not be landfarmed or stored within 500 feet of an agricultural drainage well.</p>
120.7(3)	<p><i>Sinkholes.</i> PCS shall not be landfarmed or stored within 500-feet of a sinkhole.</p>
120.7(4)	<p><i>Groundwater elevations.</i> Multiuse landfarms shall not landfarm PCS in soil that is within 5 feet of the high water table.</p>
120.7(5)	<p><i>Surface waters of the state.</i> PCS shall not be landfarmed or stored within 200 feet of a stream, lake, pond, wetland, or other surface water of the state. The department may waive the setback requirement for surface waters that have been constructed for pollution control purposes.</p>
120.7(6)	<p><i>Tile lines.</i> PCS shall not be landfarmed or stored within 200 feet of a tile line surface intake. The absence of tile surface intakes shall be verified by written confirmation from the landowner and a visual inspection of the property.</p>
120.7(7)	<p><i>Housing and sensitive populations.</i> PCS shall not be landfarmed or stored within 200 feet of an occupied residence, recreational area, child care facility, educational facility or health care facility.</p>
120.7(8)	<p><i>Flood plains.</i> PCS shall not be landfarmed or stored within the 100-year floodplain.</p>
120.7(9)	<p><i>Slope.</i> PCS shall not be landfarmed or stored on slopes greater than 5 percent. This requirement may be satisfied by utilizing United States Department of Agriculture (USDA) soil maps.</p>
120.7(10)	<p><i>Soil properties for operating area.</i> All soils in the operating area of the landfarm shall comply with the following requirements:</p> <p>a. USDA textural soil classification. Soils in the operating area of multiuse landfarms shall be silty clay, silt clay loam, clay loam, loam or silt loam as classified by the USDA Textural Classification Chart for soils.</p> <p>b. Stones and debris. Soils in the operating area shall be free of stones and debris larger than 4 inches in diameter.</p> <p>c. Soil pH. Soils in the operating area shall have a pH greater than or equal to 6 and less than or equal to 9.</p> <p>d. Bedrock separation. The operating area shall have a minimum of 6 feet of soil over bedrock.</p>

SECTION A. SITE PLAN AND ANALYSIS CONTINUED...

Subrule:	Requirement
120.8(1) "a"	<p><i>PCS storage areas.</i> Storage areas for PCS shall be constructed in compliance with the following requirements:</p> <ol style="list-style-type: none">(1) Over an impervious surface (e.g., tarp, concrete pad, plastic sheeting).(2) Under a roof or tarp to minimize the infiltration of precipitation.(3) In an area with minimal potential for stormwater run-on.
120.8(1) "b"	<p><i>Flagging.</i> The landfarm plot(s) upon which PCS is land applied shall be flagged for one year after land application or until the landfarm is closed pursuant to rule 567-120.12</p>
120.8(2) "a"	<p><i>Signage.</i> Signs shall be posted as follows:</p> <ol style="list-style-type: none">(1) A sign at the primary entrance specifying the name and permit number of the facility, and the telephone number of an emergency contact person.(2) One "No Trespassing" sign every 200 feet on the site's perimeter but not fewer than one sign per side of the property.(3) Signs clearly designating and uniquely labeling each separate landfarm plot. The designations and labels for each separate landfarm plot shall not be changed.
120.8(2) "b"	<p><i>Access.</i> The department may require that the landfarm be fenced and locked to prevent unauthorized access.</p>
120.8(2) "c"	<p><i>Groundwater monitoring.</i> See Section C of the "Documents to be Attached" to the permit application for requirements of the groundwater monitoring plan.</p>
120.8(2) "d"	<p><i>Sediment control requirements.</i> Multiuse landfarms shall, at a minimum, implement the applicable sediment control measures below:</p> <ol style="list-style-type: none">(1) Plot separation strips. Separation strips around each landfarm plot shall be planted. Landfarm plot separation strips shall be at least 15 feet wide. The separation strips shall be planted with stiff-stemmed, dense, upright vegetation suitable for growing under native conditions. Mowing of the vegetation shall be minimized. If mowed, the vegetation shall be maintained at a minimum height of 1 foot.(2) NRCS conservation plan. Multiuse landfarms that have slopes of 3 percent to 5 percent shall implement a Natural Resource Conservation Service (NRCS) designed and approved conservation plan.
120.8(2) "e"	<p><i>Stormwater permit.</i> A stormwater permit may be required pursuant to 567—Chapter 64. Contact the Department's Storm Water Program coordinator at 515-281-7017</p>

SECTION B. GROUNDWATER MONITORING PLAN [IAC 567-120.5(1) “d”]

- ➡ **Attach a groundwater monitoring plan that complies with the requirements below in accordance with IAC 567-120.8(2) “c”:**

Subrule:	Requirement
120.8(2) “c”(1)	<p>Monitoring plan. A groundwater monitoring plan shall be maintained which demonstrates that groundwater quality can be accurately monitored at the site. The monitoring plan shall contain the rationale for the position and number of wells, sampling frequency and testing parameters and procedures. At a minimum, the testing parameters and procedures shall comply with the following in accordance with subrule 120.11(1) “d”:</p> <p>Multiuse landfarms shall annually test all groundwater monitoring wells as follows. A laboratory certified pursuant to 567—Chapter 83 for UST petroleum analyses shall test the samples. Test results for each well at a multiuse landfarm shall be submitted to the department by the first workday in January of each year.</p> <p>(1) BTEX testing. The groundwater monitoring wells shall be tested for benzene, toluene, ethylbenzene, and xylene (BTEX). The BTEX analysis shall utilize the most recent version of Method OA-1 (GCMS), “Method for Determination of Volatile Petroleum Hydrocarbons (Gasoline),” University of Iowa Hygienic Laboratory.</p> <p>(2) TEH-diesel and waste oil testing. The groundwater monitoring wells shall be tested for total extractable hydrocarbons (TEH-diesel and waste oil). The TEH-diesel and waste oil analyses shall utilize the most recent version of Method OA-2, “Extractable Petroleum Products (and Relatively Low Volatility Organic Compounds),” University of Iowa Hygienic Laboratory.</p> <p>(3) MTBE testing. The groundwater monitoring wells shall be tested for MTBE unless prior analysis of PCS accepted for landfarming, pursuant to rule 567—135.15(455B), has shown that MTBE was not present in soil or groundwater of the source. A laboratory certified pursuant to 567—Chapter 83 for UST petroleum analyses shall test the samples. The analysis shall utilize one of the following methods:</p> <ol style="list-style-type: none">1. The most recent version of Method OA-1 (GCMS), “Method for Determination of Volatile Petroleum Hydrocarbons (Gasoline),” University of Iowa Hygienic Laboratory.2. U.S. Environmental Protection Agency (EPA) Method 8260B, SW-846, “Test Methods for Evaluating Solid Waste,” Third Edition.
120.8(2) “c”(2)	<p>Monitoring wells. Groundwater monitoring wells sufficient to monitor groundwater shall be installed. At a minimum, one up-gradient and two-down gradient monitoring wells shall be installed. The groundwater monitoring wells shall be no further than 50 feet from the edge of the operating area.</p>

SECTION C. PLAN OF OPERATIONS REQUIREMENTS [IAC 567-120.5(1) "e"]

- ➡ **Attach a plan of operations that complies with the requirements below in accordance with IAC 567-120.9(455B):**

Subrule:	Requirement
120.9(1)	<i>Standard PCS.</i> Only Standard PCS may be land applied or stored at a landfarm without a permit from the department. A permit amendment from the department, pursuant to subrule 120.4(10), shall be obtained for each particular source and type of nonstandard before the PCS may be land applied or stored at a landfarm. The permit amendment application shall include a justification of how much PCS can be safely and effectively remediated by landfarming.
120.9(2)	<i>Saturated, Slurry, or Flammable PCS.</i> PCS in a saturated, slurry, or flammable condition shall not be land applied or stored at a landfarm. PCS in such a condition shall be bulked with other biodegradable materials (e.g., compost, mulch) until it is no longer saturated, in a slurry, or flammable before it is land applied or stored at a landfarm.
120.9(3)	<i>PCS Storage.</i> PCS that cannot immediately be land applied at the landfarm during landfarm season may be stored at the landfarm as follows. PCS delivered during nonlandfarm season may be stored until the conditions of subrule 120.9(4) are satisfied or within the first seven days of landfarm season, whichever is shorter. a. 7-days or less. PCS may be stored no longer than seven days in compliance with the following requirements: (1) Over an impervious surface (e.g., tarp, concrete pad, plastic sheeting). (2) Under a roof or tarp to minimize the infiltration of precipitation. (3) In an area with minimal potential for stormwater run-on. b. Extended storage time. No PCS shall be stored longer than seven days during landfarm season without written permission from the department field office that has jurisdiction over the landfarm.
120.9(4)	<i>PCS application weather and landfarm season.</i> a. PCS shall only be land applied during non-landfarm season if the PCS must be land applied as part of an emergency cleanup supervised by the department pursuant to subrule 120.6(1), or all of the following conditions exist: (1) The operating area is free of snow. (2) The slope of the operating area is less than 3 percent. (3) The PCS is incorporated into the soil as soon as site conditions allow. b. PCS shall not be land applied during precipitation.
120.9(5)	<i>One application, source and type of PCS per plot.</i> One application of a particular source and type of PCS may be applied to a landfarm plot. A landfarm may only apply a subsequent application of PCS to a previously utilized landfarm plot if such application is in compliance with the following: a. A subsequent application of a particular source and type of PCS may be applied to a previously utilized landfarm plot in a multiuse landfarm after the following requirements have been met: (1) The plot has been tested pursuant to subparagraphs 120.6(2)"c"(1), (2), and (3), and the results demonstrate that petroleum constituent concentrations are less than 0.54 mg/kg for benzene, 42 mg/kg for toluene, 15 mg/kg for ethylbenzene, 3800 mg/kg for TEH-diesel and 0.02 mg/kg for MTBE. (2) The PCS turning requirement of subrule 120.9(10) has been completed.
120.9(6)	<i>PCS application rates.</i> PCS shall be land applied at a rate that is as uniform as practical over an area sufficient to satisfy the greater of the following area requirements. However, PCS from an emergency cleanup supervised by the department pursuant to subrule 120.6(1) may instead be land applied at a rate of 162 ft ² of landfarm area per cubic yard (yd ³) of PCS, that is as uniform as practical, and in which no layer of unincorporated PCS is thicker than 2 inches. a. Petroleum constituents. PCS shall be land applied over the largest area required by the following: (1) Benzene. PCS contaminated with benzene shall be land applied in accordance with Table 1. The average concentration of benzene in the PCS shall be used to determine the landfarm area (ft ²) required per cubic yard (yd ³) of PCS to be land applied. The average concentration of benzene shall be calculated from all soil boring test results that are within the PCS excavation area. The application shall be as uniform as practical over the area required.

SECTION C. PLAN OF OPERATIONS REQUIREMENTS CONTINUED...

Subrule:	Requirement																				
	<table><tr><th colspan="4">Table 1</th></tr><tr><th>Average concentration of benzene (mg/kg)</th><th>Ft² of landfarm area per yd³ of PCS applied</th><th>Maximum thickness of unincorporated PCS</th><th>Yd³ of PCS per acre of landfarm</th></tr><tr><td>0 < mg/kg ≤ 10</td><td>81 ft²</td><td>4 inches</td><td>537 yd³</td></tr><tr><td>10 < mg/kg ≤ 20</td><td>162 ft²</td><td>2 inches</td><td>268 yd³</td></tr><tr><td>20 < mg/kg</td><td>324 ft²</td><td>1 inch</td><td>134 yd³</td></tr></table> <p>(2) Toluene, ethylbenzene, xylene, and TEH-diesel. PCS that is not contaminated with benzene or MTBE, but is contaminated with toluene, ethylbenzene, xylene, THE-diesel, or some combination thereof, shall be land applied at a rate of 81 ft2 of landfarm area per cubic yard (yd3) of PCS. The application shall be as uniform as practical, and no layer of unincorporated PCS shall be thicker than 4 inches.</p> <p>b. Total heavy metals. PCS that has been tested for heavy metals pursuant to subparagraph 120.6(2)“c”(4) shall be applied at a rate that is as uniform as practical, that results in no layer of PCS is thicker than 4 inches, and that upon incorporation produces a landfarm soil that satisfies the following requirements. This analysis requires prior testing of background levels of heavy metals at the proposed landfarm site.</p> <p>(1) Total heavy metals are less than 2,500 milligrams per kilogram (mg/kg).</p> <p>(2) Any particular concentration of a heavy metal is less than the appropriate statewide standard for soil developed pursuant to 567—Chapter 137.</p>	Table 1				Average concentration of benzene (mg/kg)	Ft ² of landfarm area per yd ³ of PCS applied	Maximum thickness of unincorporated PCS	Yd ³ of PCS per acre of landfarm	0 < mg/kg ≤ 10	81 ft ²	4 inches	537 yd ³	10 < mg/kg ≤ 20	162 ft ²	2 inches	268 yd ³	20 < mg/kg	324 ft ²	1 inch	134 yd ³
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120.9(7)	<i>Flagging.</i> The landfarm plot(s) upon which PCS is land applied shall be flagged for one year after land application or until the landfarm is closed pursuant to rule 567--120.12(455B), whichever is shorter.																				
120.9(8)	<i>Removal of solid waste and rubble.</i> All solid waste that is not PCS (e.g. pipe) shall be removed and properly disposed of. All rubble, stones, and debris larger than 4 inches in diameter, or that interfere with incorporating and turning the PCS, shall be removed and properly disposed of.																				
120.9(9)	<i>PCS incorporation.</i> PCS shall be incorporated into the soil by tilling, disking, or other suitable means within 48 hours of being land applied or before the next precipitation event, whichever is sooner. PCS shall not be incorporated deeper than 12 inches.																				
120.9(10)	<i>Turning the PCS.</i> After incorporation, the PCS shall be turned by tilling, disking, or other suitable means at least once per month for the first three months during landfarm season.																				
120.9(11)	<i>No crops for consumption.</i> Multiuse landfarms shall not grow crops for human or livestock consumption within 15 feet of the operating area until the landfarm is closed pursuant to subrule 120.12(1).																				
120.9(12)	<i>Water quality.</i> A multiuse landfarm shall not accept additional PCS if evidence of surface water or groundwater contamination exists. Such evidence includes, but is not limited to, a visible sheen on immediately downgradient surface waters or downgradient monitoring well test results greater than two standard deviations of mean analyte concentrations in corresponding upgradient monitoring wells. Responsible parties shall notify the department within 6 hours of discovery of contamination of a water of the state by calling (515) 281-8694. The acceptance of PCS shall be suspended until written verification has been received from the department that the site is not or is no longer contaminating surface water or groundwater.																				

120.9(13)	<p><i>Removal of PCS from a landfarm.</i> PCS shall not be removed from a landfarm until the landfarm is closed pursuant to rule 567--120.12(455B) or the following conditions are met:</p> <ol style="list-style-type: none"> One sample from each 2,500 ft² (e.g., 50-foot x 50-foot area) of landfarm plot is analyzed pursuant to subparagraphs 120.6(2)"c"(1), (2), and (3). A minimum of one sample per landfarm plot shall be obtained. All samples shall be obtained from between the top 2 to 6 inches of soil. The results of the tests in paragraph 120.12(1)"a" demonstrate that petroleum constituent concentrations for benzene, toluene, ethylbenzene, TEH-diesel, and MTBE are below the detection limits required by 567—Chapter 135. Records of the lab results, amount of PCS removed, and the exact final location of the PCS shall be maintained by the landfarm.
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SECTION D. EMERGENCY RESPONSE AND REMEDIAL ACTION PLAN [IAC 567-120.5(1) "f"]

- ➡ **Attach an emergency response and remedial action plan (ERRAP) for the landfarming agency with this application. The ERRAP may be submitted in a format chosen by the applicant, but shall, at a minimum, contain the components listed below and in Iowa Administrative Code rule 567-120.10 "Emergency response and remedial action plans."**

In accordance with IAC 567-120.10(1), ERRAP documents shall be readily available and single-use landfarm applicators shall have employees carry a copy of the ERRAP document to each site where operations are taking place.

Subrule:	Requirement
120.10(4)	<p><i>Facility information.</i></p> <ol style="list-style-type: none"> (1) Permitted agency. (2) DNR permit number. (3) Responsible official and contact information. (4) Project location. (5) Facility description. (6) Site and environs map. <p><i>Weather-related events.</i></p> <ol style="list-style-type: none"> (1) Intense rainstorms and erosion. (2) Intense rainstorms or flooding impacting site access and usability. <p><i>Fire and explosions.</i></p> <ol style="list-style-type: none"> (1) Flammable PCS. (2) Buildings onsite. (3) Equipment. (4) Waste gases from PCS. (5) Off-site fires or explosions at cleanup site or during transport. <p><i>Spills and releases.</i></p> <ol style="list-style-type: none"> (1) Saturated or slurry PCS. (2) Free liquids from stored PCS. (3) Spill of PCS during transport. <p><i>Hazardous materials.</i></p> <ol style="list-style-type: none"> (1) Hazardous waste delivery. (2) Hazardous gases. <p><i>Emergency, spill and release notification and reporting.</i></p> <ol style="list-style-type: none"> (1) Emergency response agencies. (2) Federal agencies. (3) State agencies. (4) County and city agencies. (5) Special populations near site. (6) Reporting requirements and forms. (7) News media. <p><i>Primary emergency equipment inventory.</i></p> <ol style="list-style-type: none"> (1) Major equipment. (2) Fire hydrants and water sources. (3) Off-site equipment resources. <p><i>ERRAP training requirements.</i></p> <ol style="list-style-type: none"> (1) Training providers. (2) Employee orientation. (3) Annual training updates. (4) Training completion and record keeping.

SECTION E. USE OF LAND [IAC 567-120.5(1) “g”]

- ➡ **Attach information on how the site will be used for at least 3 years following the last application of PCS.**